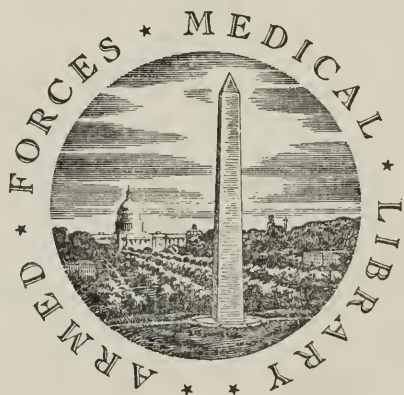
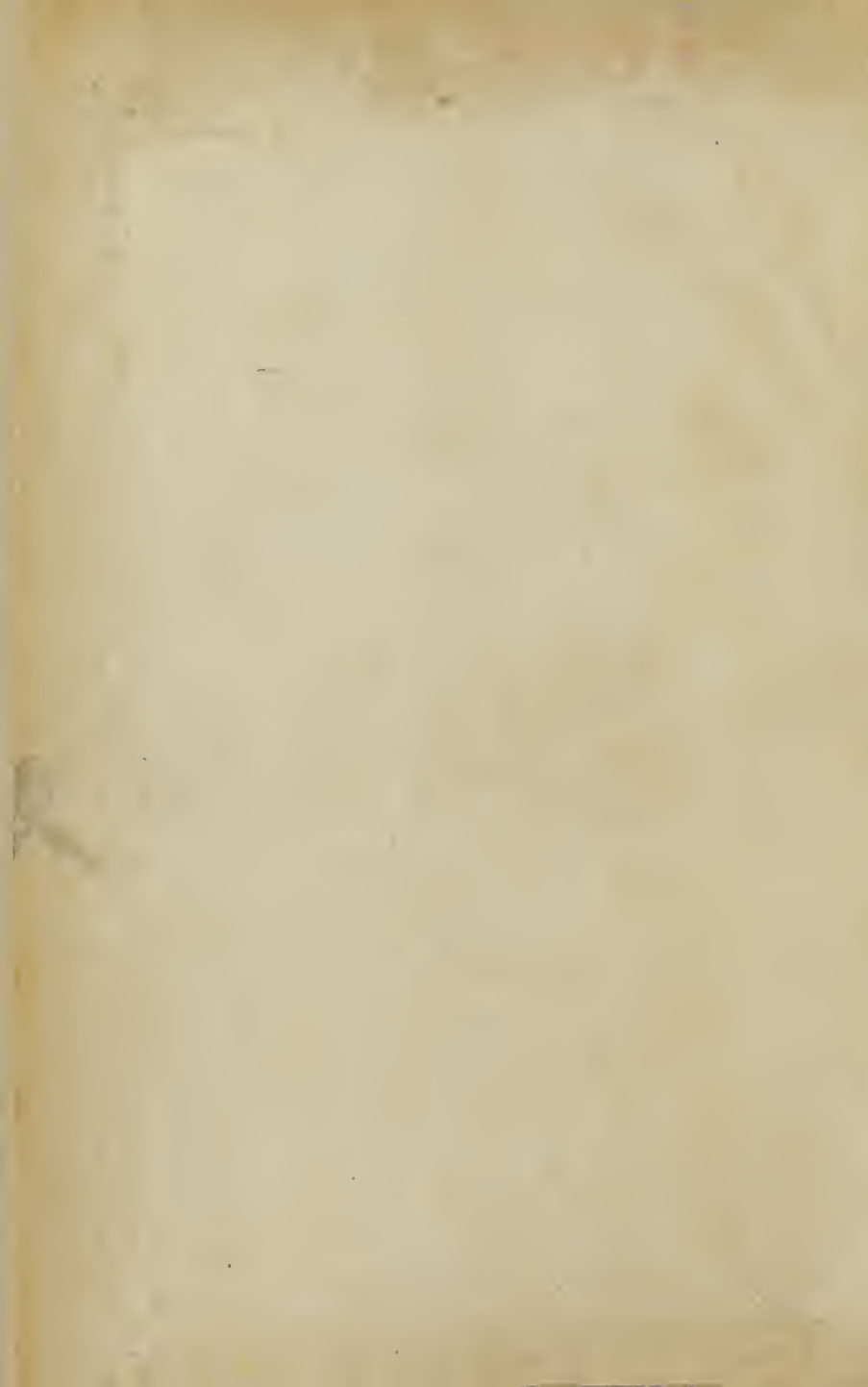


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INAUGURAL DISSERTATION, &c.

ERRATA.

.....

- Page 3, line 5 from the bottom, for *facully* read faculty.
 — 11, — 12 from the top, for *nagivators* read navigators.
 — 20, — 9 from the top, for *virgæ* read virga.
 — 21, — 1 —————, — *Argetata* read Argelata.
 — 21, — 8 —————, — *præpuçtium* read præputium.
 — 27, — 5 —————, — *expensive* read expressive
 — 27, — 10 —————, — *haw* read hawe.
 — 30, — 7 from the bottom, for *dictur* read dicitur.
 — 31, — 15 from the top, for *oxpresses* read expresses.
 — 31, — 20 —————, — *teræ* read terræ.
 — 32, — 3' from the bottom, after Oxford insert the word concerning.
 — 47, — 6 from the top, for *treat it as it* read treat as it.
 — 52, — 5 from the bottom, for *salavia* read faliva.
 — 55, — 10 —————, — *gastic* read gastric.
 — 70, — 2 from the top, for *that the dogs* read that dogs.

Wherever *Sauche* occurs read Sanchez.

AN
INAUGURAL DISSERTATION,

UPON THE

THREE FOLLOWING SUBJECTS:

I.

AN ATTEMPT TO PROVE, THAT THE LUES
VENEREA WAS NOT INTRODUCED INTO
EUROPE FROM AMERICA.

II.

AN EXPERIMENTAL INQUIRY INTO THE MO-
DUS OPERANDI OF MERCURY, IN CURING
THE LUES VENEREA.

III.

EXPERIMENTAL PROOFS THAT THE LUES
VENEREA, AND GONORRHOEA, ARE TWO
DISTINCT FORMS OF DISEASE.

BY JAMES TONGUE

OF MARYLAND;

*Honorary Member of the Philadelphia Medical and Chemical
Societies.*

"No man ought to surrender his own judgment to any mere authority,
however respectable."

Priestley on phlogiston.

PHILADELPHIA:

PRINTED FOR THE AUTHOR.

.....

1801.

AN
INAUGURAL DISSERTATION,
FOR
THE DEGREE
OF
DOCTOR OF MEDICINE;
SUBMITTED TO THE EXAMINATION
OF
THE REV. JOHN EWING, S. S. T. P. PROVOST,
THE
TRUSTEES AND MEDICAL FACULLY
OF
The University of Pennsylvania.
ON THE
EIGHTH DAY OF JUNE, 1801.

TO
BENJAMIN RUSH, M. D.
*Professor of the Institutes of Medicine, and
Clinical Practice,*
IN THE UNIVERSITY OF PENNSYLVANIA;

MUCH RESPECTED SIR,

WERE the subjects which I have chosen for the inaugural fruits of my study in medicine, treated in a manner suitable to their importance, I could then, with some degree of pleasure, offer them to your perusal.

Before departing from you, under whom I have studied, and from whom I have received my principles in medicine ;—I beg you to accept this dissertation, as a small but sincere tribute of gratitude and esteem, for the many advantages and attentions received during the studies of

Your Affectionate Friend,

And Obligated Pupil,

JAMES TONGUE.

TO
BENJAMIN SMITH BARTON, M. D.
*Professor of Materia Medica, Natural History,
and Botany,*

IN
THE UNIVERSITY OF PENNSYLVANIA,

A MAN
EMINENTLY DISTINGUISHED
FOR HIS GENIUS AND LEARNING,

This Dissertation

Is respectfully inscribed, as

A small Testimony of Esteem

And Gratitude,

By his sincere Friend,

JAMES TONGUE.

INTRODUCTION.

IT will be thought presumptuous that the author, a mere tyro in the science of medicine, should attempt to write upon three subjects, which have, for centuries, agitated the medical world.

If there be no information afforded in the following pages, he will, at least here, be on a footing with many of his superiors.

It would be impossible, in the compass of a discourse like the present, to enter minutely into each of the different subjects embraced in this dissertation. It would require years instead of the few weeks which are allowed to the candidate, to write a thesis; and a mind pregnant with information, instead of one which can only be in its infancy.

The first part of this dissertation; must necessarily consist in a collection of such facts, as he has been able to procure.

Most people, have such an aversion from being experimented upon, particularly with the venereal virus, that it has prevented the second part of this dissertation from being treated in such an ample manner as could be wished.

I cannot forbear mentioning here, that the experiments contained in the following pages, were made with the greatest care, and related with the strictest fidelity; yet I am sensible, many inaccuracies may have escaped; which those will most readily excuse, who have experienced the difficulties incident to such researches.

I.

AN ATTEMPT TO PROVE, THAT THE LUES VENEREA WAS NOT INTRODUCED INTO EUROPE FROM AMERICA.

The origin of the disease, now called lues venerea, has been a subject of much debate among most medical writers. The greatest part of these inform us, that it was brought by Columbus and his companions from the West Indies, between the years 1494, and 1496, *merely* because it happened to rage with great violence in Europe, shortly after the return of those navigators from their first voyage—like the yellow fever, no person willing to give it birth, fruitlessly seek for its origin in ships and sailors, that have arrived from foreign countries.

The proofs of those, who have given this origin to the venereal disease, are all equivocal, and much greater counter demonstrations must be adduced, before the scale will preponderate on that side of the question ; though now it appears to be the most prevalent opinion, as scarcely a book on this subject can be opened, but we are informed that this disease was introduced into Europe from America.

To find out the precise time of its first appearance, would perhaps be as fruitless as the search after the philosopher's stone. The limits of this dissertation will not admit me to enter into so minute an investigation of its origin, as could be wished.

We will offer here a few remarks upon one of the oldest books we have in existence—namely, the Bible. *

It has been said by some authors, that “the fore boils wherein Satan smote Job by God's permission, from the sole of his foot to the crown of his head,” was the venereal disease.

In ch. 20. v. 11. he says,—“his bones are full of the sin of his youth, which shall lie down with him in the dust.”

It has been said that the following verses lead us to believe that David had the same disease. Psalm 38. v. 3. “There is no soundness in my flesh, because of thine anger; neither is there any rest in my bones, because of my sin.”

* No person will think there is the least impropriety in making the following quotations from the bible. The same causes existed then as exist now for the production of this disease; and in those times, other diseases existed which were a thousand times worse.

V. 5. "My fores are putrified and corrupted, because of my foolishness."

V. 7. "For my loins are filled with a loathsome disease, and there is no soundness in my flesh."

It is said in Ecclesiasticus, ch. 19. v. 3. as follows,—“And he who joineth himself to harlots, will be naught. Rottenness and worms shall inherit him.”

The following verses, we find in the 15th chapter of the book entitled Leviticus, commonly said to be written by Moses. They are part of a law given by him in order to prevent a disease from spreading, which appears to have been a true gonorrhœa.

“Leviticus ch. 15. v. 2. “The man that hath an *issue of seed* shall be unclean.”

V. 3. “And then shall he be subject to this evil, when a filthy humour, at every moment, cleaveth to his flesh, and gathereth there.”

V. 4. “Every bed, on which he sleepeth, shall be unclean, and every place on which he sitteth.”

V. 5. “If any man touch his bed he shall wash his cloathes; and being washed with water, he shall be unclean until the evening.”

V. 6. “If a man sit where the man had sitten, he also shall wash his cloathes; and

being washed with water shall be unclean until the evening."

V. 7. "He that toucheth his flesh, shall wash his cloathes; and being himself washed in water shall be unclean until the evening."

V. 8. "If such a man cast his spittle upon him that is clean, he shall wash his cloathes; and being washed with water, he shall be unclean until the evening."

V. 9. "The saddle on which he sitteth, shall be unclean."

V. 10. "And whatsoever has been under him, that has the *issue of seed*, shall be unclean until the evening. He that carrieth any of these things shall wash his cloathes; and being washed with water he shall be unclean until the evening."

V. 11. "Every person whom such a one shall touch, not having washed his hands before, shall wash his cloathes; and being washed in water, he shall be unclean until the evening."

V. 12. "If he touch a vessel of earth it shall be broken; but if a vessel of wood, it shall be washed with water."

V. 13. "If he who suffereth this *disease* be healed, he shall number seven days after his cleansing; and having washed his cloathes,

and all his body in living water, he shall be clean."

V. 16 "The man from whom the *seed* of *copulation* goeth out, shall wash all his body with water ; and he shall be unclean until the evening."

V. 17. The garment or the skin that he weareth shall be washed with water ; and he shall be unclean until the evening.

V. 32. This is the law of him that hath the *issue* of *seed*, and that is defiled by *copulation*."

We see that the disease of the Jews, called the *issue of seed*, as described in the preceding verses, was contagious to the greatest degree, and also propagated by *copulation*.

To prove that this was a gonorrhœa, it is only necessary to observe that this disease has till very lately been supposed to consist in a flow of semen.* Hence the word gonorrhœa is derived from the Greek words γενίτις genitura semen and ῥέω fluo, i. e. fluxus feminis. And upon looking into this part of the Greek bible we find the word γονορροία i. e. *seminis genitalis*

* Astruc, a late writer defines this disease to be a discharge of semen from the uretha.—See his description of it, vol. 1.

profluvium, which is translated in the bible *an issue of seed*.

It is said by one of the prophets, “Fly the person afflicted with the *Judham* as you would a lion.”

Judham being an Arabian word which signifies an inveterate degree of the venereal disease; caused by improper treatment*.

The inhabitants of Indostan have, time immemorial, made use of the word *Khorah* to signify the same thing.†

The venereal disease has been known to the inhabitants of Indostan *time immemorial*, by the name of the *Persian fire*.

This disease has been attributed by them time out of mind to the Persians, as the Europeans have attributed it to the Americans, the French to the Neapolitans, the English and Germans to the French, &c. This disease certainly existed among the Greeks and Romans:

The disease to which the Scythians were subject according to *Herodotus*, and also according to *Hippocrates*,‡ who have both nam-

* See Asiatic Researches, vol. 2, and Swediaur's maladies syphilitiques derniere edition a Paris, 1798. Tom. 1.

† Ib.

‡ Hippocrates wrote 460 and Herodotus 404 years before the christian era.

ed it *morbus fæmininus* (Swediaur fays) seems to have been a true gonorrhœa.* The last of these authors, (Hippocrates), speaks of defluctions from the private parts, exulcerations, tubercles in the groins, large spreading ulcers, abcesses and suppurations, mutilations of the bones and nerves.†

In his book "*de morbis mulierum*" he makes mention of the suppuration of the inguinal glands, and he attributes it to the suppression of the menses, which we now know, will not cause a suppuration of those parts.

Juvenal, in Satyre XI, who wrote in 128, and *Martial*, lib. viii, and ix, who wrote in 100, speak of ulcers in the genital parts, as diseases produced by impure coition.

Plutarch,‡ in his life of Otho, about the middle of the first century, speaking of Tigellinus, fays that he was afflicted with several diseases, which he had contracted by conversing with lewd women.

In *Pliny* the second, lib. 6, Epif. 34, (who wrote in 97) we find a disease of the falling off, of the genital parts, which was regarded

* Voyez. Swediaur, derniere edition, a Paris, 1798.

† He speaks of these in his epidemic diseases.

‡ Vol. 8. p. 303.

as incurable, “*Maritus ex diutino morbo circa velenda corporis ulceribus putrescebat.*”

Diascorides, (who wrote in 50) recommends remedies against rhagades, condylomata, maligna ulcera, vulvæ tubercula, genitalium et vulvæ exulcerationes.”

Sextus Placitus, papyriensis parabil. medicament. script. antiq. speaks of remedies against “bubones seu tumores ad inguina, carbunculos in veretro, ficos in ano, rhagades, phymata, callos in veretro.”

Galenus (*opera per I. Cornar.*) who wrote in 200, speaks of phymosis, paraphymosis, rhagades, condylomata, bubones, phymata purulenta, acrochordones, &c.

Bishop Palladius, who lived in the fifth century, under the reign of Theodosius, junr. relates the following curious anecdote of a hermit named *Heron*, who had always led a very virtuous life.

From the Greek of *Palladius*, it has been translated into French, from which I have translated it into English.

“At last *Heron*, seized by the influence of evil genius, and transported as if by a devouring fire, could not remain confined to his cell. He sets out all at once for Alexandria: the design of God called him there. and ac-

ording to the proverb, drove a nail by the other.*

“Indeed he fell into the forgetfulness of his duties, that were to lead him, in spite of him, to his safety. He frequented theatres, horse-races, and spent his life in taverns. From the excess of good cheer and wine, he fell into the abuse of women, and the most dirty libertinage. Having resolved to sin, he had an habitual commerce with a dancer of pantomimes, and declared to her the evil, (or wound) that tormented him. In the mean while there came upon the gland of his genital parts, a carbuncle or anthrax (probably what we would call a chancre). The disease grew so bad in the space of six months, that his genital parts were mortified and fell off.” This is a sufficiency of the anecdote for our purpose, and every body will think with me that it was a case of confirmed syphilis.

Celsus, (who wrote in the first century), in his book 4. ch. 31, speaks of “*nimia profusio feminis sine venere, et sine nocturnis imaginibus*. That is to say, a true gonorrhœa, which became at last fatal, in causing by degrees a

* That is to say, pride, by the humiliation of his fall.

consumption. And in book 6. ch. 18, he speaks of ulcers in the genital parts.

Guillelmus de Saliceto, *placentinus chirurg.* lib. 1, ch. 42. (who wrote 223 years before the discovery of America) speaks “De apostemate in inguinibus. Hæc agritudo vocatur bubo vel dragoncelli inguinis.” And he says in the same sentence, “et aliquando accidit homini in virgæ corruptio propter concubitum cum fœdâ muliere, aut ab aliâ causâ.” Again, in ch. 48, he speaks, “de pustulis albis vel rubris, et de milio et de corruptionibus circa preputium, propter coitum cum fœda muliere, aut cum meretrice, aut ab aliâ causâ.”

Guido de Cauliaco Gabalanus, doctor of physick and surgeon in the university of Montpellier, *chirurg. mag.* (who wrote 133 years before the discovery of America) speaks “de calificatione et fœtiditate in virgâ propter decubitum cum muliere fœda.”

Valescus de Tarenta, professor of Montpellier, lib. 6. (Who wrote 93 years before the discovery of America,) speaks. “De ulceribus et pustulis virga.” Again he says, “pustulae virgae fiunt si quis coeat cum femina habente ulcus in matrice, quae contagio, sitate sua inficit virgam et in ea facit ulcus.

Petrus de Argetata of Bologna, Doctor in arts and phyfic, in his chirurg. lib. 2. who wrote 23 years before the difcovery of America, fpeaks ; “*pustulis quae adveniunt virgae propter conversationem cum foedâ muliere, quae albae funt vel rubra. Ex materiâ venenosa, (fays he) quae retinetur inter praeputium et pellem virgae caufantur istae pustulae, &c.*”

Lanfranc of Milan, Doctor of phyfic who wrote in 1290. *Benedictus Gordonius*, who wrote in 1300, professor of phyfic at Montpellier ; and *John of Gaddesden* an English surgeon who wrote in 1301, all fpeak of the fame affections of the genital parts as the preceeding writers.

The following is taken from a M. S. in Lincoln-College in Oxford * (written 63 years before the difcovery of America).

“*Novi enim ego Thomas Gascoigne, † licet indignus, sacrae Theologiae Doctor, qui hac scripsi et collegi, diversos viros qui mortui fuerunt ex putrefactione membrorum suorum genitalium et corporis sui ; quæ conup-*

* See Beckett on the antiquity of the venereal difease, in the philosophical transactions abridged by Eames and Martin, vol. 7.

† Chancellor of Oxford.

tio et putrefactio, ut ipsi dixerunt, causata fuit per exercitium copulæ carnalis cum mulieribus. Magnus enim dux in Anglia, seil. I de Gaunt, * mortuus-est ex tali putrefactione membrorum genitalium et corporis sui, causatâ per frequentionem mulierum, magnus enim fornicator fuit, ut in toto regno Angliæ divulgabatur, et ante mortem suam, jacens sic infirmus in lecto idemeandem putrefactionem regi AngliæRicardo secundo ostendit,cumidem eundem ducem in suâ infirmitate visitavit; et dixit mihi qui ista novit unus fidelis sacrae Theologiæ Baccalaureus. Willus etiam longe vir maturæ aetatis et civitate Londonii, mortuus est ex tali putrefactione membrorum suorum genitalium et corporis sui, causatâ per copulam carnalem cum mulieribus, ut ipsemet plures confessus est anti mortem suam, cum manu suâ propriâ eleemosynas distribuit, ut ego novi, Anno Domini 1430.

It is evident from what has been said, that there existed, long before the discovery of America, diseases of the genitals, similar from their description to the venereal disease, which was communicated in the same way

† John, Duke of Lancaster, called by the English, John de Gaunt.

that this disease is—and which certainly was the same disease.

The following quotation, is taken from the statutes for the regulation of the public stews, established at Avignon in 1347, by Jane 1st, queen of both the Sicilies and countess of Provence, (written 145 years before the discovery of America.)

*Article 4.**

“ The queen commands, that on every Saturday the women in the house singly be examined by the abbess and a surgeon appointed for that purpose by the directors, and if any of ’em has contracted any illness by their whoreing, that they be separated from the rest, and not suffered to prostitute themselves, for fear the youth, who converse with ’em, should catch their distempers.”

In the chronicle of Cardamus we read that Ladislas king of Naples died in the year 1414, in consequence of an infection in the genital parts communicated by his mistress.*

It is said that Alphonfus, likewise king of Naples, died in 1458 of an inveterate gonorrhœa; these words are related of him,—“anxi-

* Vide Astruc upon the Venereal, vol. i.

† See Sanchez.

us deceffit, morbo infuper immundo et perniciaci, involuntario fcilicet infenfibilique *fpermatis fluxu*.*”

The venereal difeafe, appears to have exifted in England, many centuries before the difcovery of America, under the name of brenning or burning.

Mr. Beckett † informs us that ftews were allowed to be kept on the bank fide in Southwark under the jurifdiction of the bifhop of Winchefter. He fays there were anciently 18 of thofe ftews, but in the reign of Henry VII, they weré reduced to twelve.

He has examined the records that relate to the regulation of thefe ftews—The following are fome extracts from them. “ We find that as early as the year 1162 divers confutations relating to the lordfhip of Winchefter (being confined by the king) were to be kept for *ever* according to the old cuftom that had been *time out of mind*.”

After mentioning feveral rules we find the following—“ No ftewholder to keep any woman that hath the perilous infirmity of burning.”

* See Sanchez.

† See philofophical tranfactions abridged by Jones, vol. 5, p. 381.

It appears that this brenning or burning had existed at a much more early period, as these regulations were only a renewal of such as had been before established time out of mind.

But to confirm this further—"I find, (says Mr. Becket) that in the custody of the Bishop of Winchester, whose palace was situated on the bank-side near the *stews*, was a book written upon vellum, the title of which runs thus, "Here begynne the ordinances, rules and customs, as well for the salvation of mannes lif, as for to aschewe many mischiefs and inconvenients that dayly be like there for to fall owte, to be rightfully kept, and due precaution of them to be done unto any personne within the same."

One of the articles begins thus—"De his qui custodiunt mulieres habentes nefandam infirmitatem." It goes on then "That no stew-holder keep noo woman within his hous that hath any fycknesse of *brenning*, but that she be put owte unto the peyne of make it a fyne unto the Lord of a hundred sheyellings."

Mr. Beckett informs us this was taken from the original manuscript which was preserved in the bishops court, supposed to be written about the year 1430.

John Arden Esq. * who was one of the surgeons to king Richard II, and also to king Henry the IV, defines this brenning or burning to be a certain inward heat and excoriation of the urethra, which definition is sufficient to inform us that it was a true gonorrhoea.

The same author (John Arden Esq.) who wrote about 114 years before the discovery of America, speaking of the cure for this burning, has the following words. "Contra incendium. Item contra incendium virgæ virilis interius ex calore et excoriatione, fiat talis fyingia, (i. e. injectio) lenitiva. Accipe lac mulieris mascularum nutrientis, et parum zuccarum, oleum violæ et ptisanæ, quibus commixtis per fyingam infundatur, et si predictis admiscueris lac amigdalarum melior erit medicina.†

Mr. Buckett ‡ informs us that in an old manuscript he has in his possession, written about 1390, is a receipt for brenning of the pyntyl yat men clepe ye, ape galee. Galee being an old English word for a running fore.

And in another manuscript written about 50 years after is a receipt by a woman.

* See philo. trans. abrid. vol. 5, p. 383.

† Ibid. vol. 7.

‡ Ib.

It is certain that the disease, from the description of its symptoms as given by the ancients, was often in an inveterate state, for which they appropriated particular names, perhaps more significant and expensive than those imposed by modern authors. Thus, for instance, buboes in the groin they called dorfers, from their protuberancy or bunching out. And the venereal nodes on their shin bones, they called boon or bone haw; which gives us not only a just idea of the part diseased, but in what manner it was affected; *Hawe* being an old English word for a swelling.*

We have seen the word *brenning* or *burning* mentioned as early as the year 1162, and used at different periods up to the time of the discovery of America; we will now proceed to prove it has been used by many writers since that time, to signify the venereal disease.

Andrew Boord, a Doctor of physic and Romish priest, in his book, entitled the *bre-viary of health*, printed in 1546, speaks very particularly of this sort of burning. One of his chapters begin as follows: "The 19th chapter, doth shew of the burning of an harlotte," and he says "That if a man be burnt

* See *Phil. Transf. Abridg.* vol. 7.

with an harlotte, and do meddle with another woman within a day, he shall burn the woman that he shall meddle withal." In his 82nd chapter, he speaks of two sorts of burning, the one by fire, and the other by a woman through carnal copulation, and refers the person that is burnt of an harlotte, to another chapter of his advice what to do, "if he get a dorser or two."

Mr. Becket* says, in a manuscript I have, of the vocation of John Ball, to the bishopric of Offory in Ireland, written by himself, he speaks of *Doctor Hugh Weston*, (who was dean of Windsor in 1556, but deprived by cardinal Pool for adultery) as follows, "At this day is lecherous *Weston*, who is more practised in the art of breech-burning than all the whores of the stews." Again, speaking of the same person, he says, "He not long ago brent a beggar in St. Botolph's parish." The same author, says of him elsewhere; "He has been fore bitten with a Winchester goose, and was not yet healed thereof," which was a common phrase for the pox at that time, because the stews were under the jurisdiction of the bishop of Winchester. And we see, that they have been

* See Philoso. Trans.

under his jurisdiction as early as the year 1162.

Simon Fish, a zealous promoter of the reformation, in the reign of Henry the VII. in his supplication of beggars, presented to the king in 1530, says as follows; " These be they, (speaking of the Romish priests) that corrupt the whole generation of mankind in one realm, that catch the pocks of one woman and bear it to another; that be *burnt* with one woman and bear it to another."

William Bullien a physician in the reign of queen Elizabeth, in a book published, called the Bulwark of Defence, printed in 1553, brings in sickness, demanding of health what he would do with a disease called the French pockes, health answers, " he would not that any should fish for this disease; or to be bold when is bitten, to think thereby to be helped, but rather to eschewe the cause of this infirmity, and filthy rotten burning of harlots."

What has been related, sufficiently proves that the venereal disease existed in England, many centuries before the discovery of America, under the name of burning or brenning.

Delphini speaks of having seen a man infected by the venereal complaint in 1491.*

Pintor, before he went to Rome, met with an old man, aged sixty, in the same condition, at Valencia, in Spain. This happened before the year 1493.

J. Zacharius Platner, in his opuscula, says, “Hoc extra dubium videtur, longè antiquam India occidua inventa est, aegritudines fuisse observatas, quibus nunc venerei opprimuntur.†

In a letter written by *Petrus Martyr*, in April 1488, we find the following words, *Petri Martyris Anglerii mediolanensis* epist. 68. Ario Lusitano, Graecas litteras salmanticae profitenti, valetudinario.

In peculiarem te nostræ tempestatis morbum, qui appellatione Hispana Bubarum dictur (ab Italis *morbis Gallicis*, medicorum Elephantiam alii, alii aliter appellant), incidisse præcipitem, libero ad me scribis pede. Lugubri autem elego calamitatem, aerumnasque gemis tuas, articulorum impedimentum, internodiorum hebitudinem, juncturarum omnium dolores intensos esse proclamas, ulce-

* See Sauchez.

† Ibid.

‡ Voyez Swediaur. Tom. 2. Introduction, p. 16.

rum et oris fœditatem superaddit in promis eloquentia, conquereris, lamentaris deploras, &c.*

If there be no mistake in the date of this letter (which I dare say there is not) it is sufficient to make every person believe that this disease was not carried from the West Indies into Europe.

Helius Capreoli de rebus Brixianorum, lib. 12, written in 1492, (before Columbus arrived in Europe from America) after having in common with Pintor and Delphini, recited the calamities which they had just experienced, and which still continued to exist, expresses himself in these words—" Ab inguine mulieribus, à glande viris sæpius incepit; mox per universum corpus vagabatur: sensere id malum præsertim incontinentes, contactu tamen inficiebat quoque vicinos, audivimus omnem ferè teræ orbem invasisse genus id contagionis *morbum galli-*

* Sanchez takes notice of this letter, in his treatise upon the origin of the venereal disease, and it is dated in his book April 5th, 1489, he thinks is most probable it was dated some years after, but he is not certain, as Swediaur has written a good many years since the publication of Sanchez's treatise, and must have seen it; we may conclude, that he would not have quoted this letter, without being certain of its date.

cum, † nuncupatum quem hæc tenus, ut elephantiafin ante pompeium magnum et aute Tiberium Claudium mentagram, Italia nunquam creditur esse passa.”

From the preceding pages it is evident, that the genital parts of both sexes, at all times, and perhaps in almost all countries, have been subject to the same diseases as those produced at present by the venereal or syphilitic virus.

The gonorrhœa of the Jews, the ulcers of the genital parts, the mortification of the penis, the swelling and suppuration of the inguinal glands, the different excoriations, the rhagades, &c. all described by the ancient Greek and latin authors. Its existence in Indostan time immemorial by the name of *persian fire*. The carbuncles and falling off of the penis of Heron in the fifth century at Alexandria. The different venereal affections of the genital parts produced “*propter decubitum cum muliere foedâ*”—the cases related by the chancellor of Oxford I. de Gaunt and Wills ; the different regulation of the public stews &c. are satisfactory

† It is notorious that venereal disease went by the name of *Morbus Gallicus*, for centuries after the discovery of America.

proofs of the antiquity of this disease. We will now proceed to say a few words more, in order to prove that this disease was not introduced into Europe from America.

Goncalo d'Oviedo, was the first and only author in those times, (about the end of the fifteenth century) who asserted that the venereal disease was brought from the island of St. Domingo, during the second voyage of Columbus, at his return, on the 8th of June, 1496. In his first voyage, d'Oviedo has not spoken of the venereal disease.* D'Oviedo was not a physician, and his authority, of consequence, is of very little importance in deciding this question. We are induced to believe that his ascribing this origin to the venereal disease was altogether conjectural from the following sentence.

D'Oviedo, qui, au rapport de Fallope, s'étoit infecté a Naples, fut assez ingénieux pour conjecturer que son mal venant des Indes occidentales, il trouveroit aussi aux Indes le plus puissant spécifique ou la meilleure recette.”†

It seems by this that the proofs, if they may be called so, of D'Oviedo are mere con-

* See Sauchez.

† Voyez recherches philosophiques, sur les Americains, par M. de Paw. tome premier. p. 17.
E

jectures. It is said that he discovered the guaiacum by which he was cured.

M. de Paw,* speaking of the origin of this disease has the following words. “Ce qui prouve, sans réplique, que la peste Vénérienne est née en Amérique, c’est la quantité de remèdes auxquels les peuples de ces contrées avoient eu recours pour en retarder les progrès extrêmes : ils ufoient de plus de soixant simples différentes, que le danger pressant les avoit forcés à connoître.”

Upon such trifling and frivolous assertions do they attempt to prove that this disease was introduced into Europe from America. If we may be allowed to reason in the same way as M. de Paw, has done, this disease ought to have originated in that country where there exists its only antidote, namely mercury.

The venereal disease certainly did not exist among the aborigenes of America.

Professor Barton, has informed me, whose information on this subject is superior to any writer, that the Indians constantly say, that the venereal disease was introduced among them by the whites, and that they cannot cure the disease ; but when afflicted with it,

* Voyez recherches philosophiques, sur les Américains, par M. de Paw. tom. premier. p. 17.

always, if possible, have recourse to the whites, in order to be cured.

Petrus Pintor, who wrote a book in 1500, entitled “*De Morbo Fædo et Ocultis his Temporibus Affligenti &c.*” says, this disease (meaning syphilis) originated in all the world at the same time, and ascribes its origin to the influence of the stars, &c.—Is it possible that if the disease had been brought from the West Indies, he would not have known it, and ascribed it to that source rather than to the influence of the stars? Even allowing him to be superstitious, would he not have taken notice of opinions on this subject contrary to his own?*

Pintor, in the fourth chapter of his work, entitled “*Aggregator Sententiarum*,” shows that the venereal disease existed in Italy eight days after the return of Columbus into Spain, from his first American voyage. He makes the following observation: “*Talis Autem Epidemia in Urbe Romana Contigit, Anno 1493, mense martii, post introitum solis in primum minutum Arietis.*”

Now the first return into Spain of Columbus, from St. Domingo, was on the 13th of March, 1493.

* See Sauchez.

Is it possible, that the venereal disease, in the space of eight days, should have been communicated from the coast of Spain, to Rome?

If this disease had been brought from America, would such a variety of causes in those times, (about the end of the fifteenth century) been assigned for its origin?—"As the fatal influence of the stars*."—"The baneful conjunction of the planets as Jupiter, Mercury, &c."—"The indisposition of the air."—"From eating human flesh."—"Lying with diseased beasts;" and a variety of others too tedious to mention.

Each of those opinions, of its origin, is given by different authors and written shortly after the discovery of America—had there indeed been any possibility of this disease having been brought from the West-Indies, would all those authors have ascribed it to such visionary causes as they have.

Astruc has taken much pains to prove that this disease was introduced into Europe from St. Domingo. He says, † that Columbus arrived in Cadiz from St. Domingo in

* See Astruc, on the venereal, vol. 1.

† See his book on the venereal, vol. 1. ch. 9.

1496, with two ships, on board of which there were two hundred foldiers infected with the *venereal disease*.

D'Oviedo, who has ascribed the origin of this disease to the same source as Astruc, would certainly have availed himself of this fact if it were the case. He (Oviedo) has taken notice of the diseased state of Columbus's foldiers, and mentions that the "Indians * in consequence of the ill treatment they received from the Spaniards, would not sow the Indian corn, which was their only nourishment. A dreadful famine was the consequence of this obstinacy. The Spaniards to prevent their perishing through hunger, were obliged to eat insects of every description; and these depraved aliments together with the extreme humidity of the climate, induced a general sickness. In this state, Columbus left St. Domingo, on the 10th of March, 1496, on his return to Spain, having on board the two ships under his command, two hundred and twenty-five sick foldiers. D'Oviedo does not say a word of the venereal disease in this place; he confines himself simply to the above sickness, as the following

* See Sauchez.

extract will shew—"The half of the crew perished, at sea through hunger. The island was covered with the bodies of dead Indians, the stench of which was so great and pestilential, as to diseafe both natives and Spaniards*."

It appears certain that the 200 soldiers, who Astruc said were infected with the venereal diseafe, must have been diseased from famine, and the pestilence, as mentioned above.

If this diseafe had existed among the inhabitants of America, would it not have been mentioned by some of the numerous historians who have written upon this country; which we do not find to be the case.

The greatest proof, (if I may so call it), that they have in ascribing the origin of this diseafe to America, is, that the guaiacum is a native of the West-Indies. This every body will allow is no proof at all.

The facts which we have related in the preceding pages, to prove that the venereal diseafe was not introduced into Europe from America, are so positive, that the most ignorant sceptic cannot refuse his assent.

* See Sauchez.

It is really strange to see the inconsistency of the authors who have written upon this subject, nearly all of them say that the venereal disease was first discovered among the Indians ; and *still* it is said, that this disease was inflicted upon us, by the Supreme Being as a punishment for the unlawful gratification of our venereal appetites. It is universally acknowledged that the venereal propensities among the Indians are in a very feeble state.

Now, is it presumable, that the Supreme Being, would inflict a disease upon a poor virtuous set of people, for the unlawful gratification of an appetite, which they scarcely possess ?

Error is never consistent with itself.

Before entering upon the *modus operandi* of mercury in the cure of the venereal disease ; it will be necessary to make a few observations upon the venereal virus.

In those substances, where it is impossible to know their nature by analysis or separation of their component parts ; the only means we have to pursue, is to study scrupulously their effects, to compare them with those with which we are best acquainted, to remark all their analogies, and to draw all the possible conclusions.

We have no correct knowledge of the venereal poison. We only know its effects, and that it is a morbid secretion.

It is generally said that this disease was inflicted upon us by the Supreme Being, as a punishment for the unlawful indulgence of our venereal appetite. This is as foreign from truth, as it is unjust to our Maker. God has nothing to do with inflicting diseases upon us. (With much reverence would I speak it.) They are all the production of our carelessness.

Does God cause a yellow fever, or is it caused by our negligence, in not timely removing the putrefying substances from our streets? Does God cause a plury or consumption, or is it the effect of not accommodating our dress to the different changes in the atmosphere?

I would rather suppose, the venereal disease was caused by copulating too frequently, thereby stimulating the vagina to such a degree, as to make it take on an action capable of secreting this poison.

We know that when a stimulus is applied to any part, disproportioned to its excitability, that it will cause a morbid secretion. This is sufficient to account for the production of

the disease, without having recourse to such a superstitious, and arbitrary explanation.

The venereal poison when once formed, is taken into the blood-vessels, and conveyed by this means to the different parts, which we see affected with this disease ; acting by its stimulating quality upon those, and in this manner producing the venereal affections, which we see in different parts of the body.

There are facts, which prove, beyond all kind of controversy, that this poison is taken into the blood-vessels.

An infected father, has communicated this disease to the fœtus, by the semen during a venereal act, the genital parts being in a state of perfect health. As a proof of this I beg leave to make the following curious quotations.

“ Un dragon de la garde du roi d'Angleterre étoit affecté d'un ulcère syphilitique dans la george, qui résista longtems au mercure, pendant le traitement il cohabita avec sa femme, qui n'a jamais eu aucun mal syphilitique, et qui est encore eu parfaite santé. L'enfant qui fut le fruit de ce coït fut attaqué, quelques semaines après la naissance, d'un ulcere syphilitique, á la george, dans le même endroit

ou le père avoit le sien. J'ai vu le père et le garçon, ils sont maintenant tous les deux parfaitement guéris.*”

“ Je suis informé qu'il y a actuellement une famille régnante en Europe, dont tous les enfans sont nés avec le germe vérolique dans leur corps, et dont aucun a survécu jusqu'à ce qu'on se décidât à la fin d'administrer le mercure à l'animal qui fournissoit le lait pour la nourriture du dernier né.†”

These are positive facts, that the venereal poison as well as mercury are taken into the circulation.

There are several cases related of the disease being communicated by transplanting teeth from apparently sound persons. ‡

Besides these, there are numerous and well established facts, of small-pox being communicated to the *fœtus in utero*, from the mother labouring under this disease. And may not this be the reason, why some persons cannot have the small-pox communicated to them after their birth.

Children have been born with small pox, who have received it in consequence of their

* Voyez Swediaur. Tom. 2. p. 10.

† Ib.

‡ See Foot on the venereal; 4to p. 472.

mothers labouring under the same disease, a short time before their birth, and the matter obtained from the pustules of the new-born children, has communicated the disease.*

This is sufficient to shew that poisonous substances are taken into the blood-vessels, and conveyed by them to different parts of the body.†

An ingenious opinion has been given upon the action of the venereal poison by a Dr. Barthez ‡ upwards of twenty years ago. He supposes that a morbid action, similar to that excited by the syphilitic virus upon the genital parts, is produced in other parts, (as the throat) simply by sympathy, without the virus being immediately applied; (and that mercury cures this disease by exciting a new or different action, in consequence of which the disease is cured or suspended.)

* See Foot, on the venereal, quarto, p. 468.

† Voyez nouveaux elemens de la science de l'homme. Montpellier 1778, and Swediaur. Tom. 2.

‡ Mr. John Hunter has published this opinion as his own; whether it really belongs to him or to Dr. Barthez, the candid and unprejudiced reader will please to determine.

For sympathy to exist any where but between minds, is a phenomenon truly astonishing!

If this theory were true, the sympathetic action ought certainly to exist in the throat, always while the genital parts are affected; but this is rarely, if ever, the case.

According to this theory, the pains in the bones, the venereal nodes, &c. all ought to exist when the genital parts are most affected; but these affections we never see take place, until the disease has existed several months, or even years; and almost always when the genital parts are perfectly cured, or at least, the disease has entirely disappeared from them. If this theory were true, I would ask, why we never see venereal ulcers first originating in the throat, in the mamma, or in other parts of the body, produce by sympathy venereal affections in the genital parts; whereas, if this were the case, these affections ought uniformly to take place? Sympathy is always reciprocal. On the contrary, we see the different venereal affections never are so.

Is it possible that this poison should act only by exciting a sympathetic action, between the genital parts and the skin, the

roots of the hair, the throat, and the *bones*, while some other parts (which every body would think more capable of taking on a sympathetic action), should remain entirely unaffected by this disease?

I would ask why, after having destroyed the venereal virus at its source ; after having cured the original venereal ulcers, we should still see syphilitic affections in other parts of the body ?

We have seen positive proofs that the poisons of syphilis and small-pox, are taken into the blood-vessels, which is sufficient to explain why different parts of the body are affected with this disease.

Nature never uses two different ways when her work can be effected by one. My preceptor, Dr. Rush, has taught us to believe that all forms of disease are produced by the application of a stimulus disproportioned to the excitability of the part, to which it is applied. In short, to believe in the existence of a sympathetic affection, between the different parts of the body, where there can be no mind, is as erroneous as—

“ —The poor Indian whose untutored mind,
“ Sees God in clouds or hears him in the wind.”

II.

AN EXPERIMENTAL INQUIRY INTO THE MODUS OPERANDI OF MERCURY, IN CURING THE LUES VENEREA.

.....

“ Ici la faiblesse de mon entendement m’arrete.”

Blanchet.

.....

I AM now entering upon a subject, which to treat it as it deserves, is a task truly difficult.

The manner in which mercury acts in curing the venereal disease, has always been one of the most inexplicable phenomena in the science of medicine.

As difficult as it is, physicians have not been deterred from forming many ingenious and beautiful hypothetical theories upon its action, in curing this disease.

To say that mercury cures the venereal disease by its weight, or by exciting a counter irritation to that produced by the venereal poison, or by producing a sympathetic action ; is saying no more than would apply to almost any article in the materia medica. Would it not be more rational to say, that the venereal poison affects the lymphatic

system, more than any other part of the body ; and that in those vessels it produces morbid excitement, in the same manner as any other stimulus produces morbid excitement in the blood-vessels. Now mercury acting upon the lymphatics, deplete in the same manner, as the lancet does in removing morbid excitement from the blood-vessels. In short, mercury is to the lymphatics, what the lancet is to the blood-vessels.



The following Experiments were made in order to ascertain the manner in which mercury acts in curing the Venereal Disease.

.....

First Series of Experiments.

.....

EXPERIMENT 1.

I inoculated my fellow-student, Mr. Wootton, on the right arm, with syphilitic matter, which was obtained from a chancre about an hour before : the part gradually inflamed, and in the space of four days, a complete chancre was formed.

EXPERIMENT 2.

At the same time, and with a portion of the same syphilitic matter, mixed with an equal quantity of calomel, I inoculated Mr. Woot-

ton on the left arm. There was no chancre, nor the least inflammation produced.

At my request, my friend Mr. Lee, made the two following experiments for me.

· EXPERIMENT 3.

A girl about 18 years old, was inoculated with a portion of small-pox matter, intimately mixed with calomel. It did not prevent her from having the disease in the usual time and form.

EXPERIMENT 4.

Two children were inoculated with the matter of small-pox, mixed with a gummous solution of mercury in the proportion of one drachm of quicksilver, and two of gum arabic. They both had the disease in the usual time and manner.

EXPERIMENT 5.

I inoculated myself with pure venereal matter * mixed with an equal quantity of a solution of corrosive sublimate of the strength of one scruple dissolved in an ounce of water, there was no chancre produced.

* This matter I knew to be pure, as it had produced a chancre in two persons who were inoculated with it.

It is certain from the preceding experiments, that mercury being mixed with small-pox matter, does not prevent that disease from being communicated, but by mixing it with venereal matter, seems to have a contrary effect.

To ascertain how small a portion of the syphilitic virus would communicate this disease, and to see how small a portion of mercury would prevent it from being taken, I made the two following experiments.

EXPERIMENT 6.

I dissolved about the sixth part of a grain of syphilitic virus (obtained from a large venereal ulcer) in one ounce of water. I introduced about a fourth of a drop of this solution into the right arm. There was no chancre nor the smallest inflammation produced.

EXPERIMENT 7.

Into the above mentioned solution I dissolved half a grain of corrosive sublimate, and inoculated the same person, on the left arm; at the same time, and with the same quantity as mentioned in the preceding ex-

periment. Neither chancre nor the least inflammation was produced.

EXPERIMENT 8.

I inoculated George Tavener, in the right arm with some of the venereal matter, obtained from the same chancre as mentioned above. A little inflammation was produced.

EXPERIMENT 9.

At the same time, and with some of the same matter, mixed with tartar emetic, George Tavener was inoculated on the left arm. Result the same as in the preceding experiment. *

Mr. Shaw, informed me that the person upon whom these two last experiments were per-

* The matter with which these four last experiments were made, was obtained from a patient who had been labouring under the disease but a few days, and it appeared to be in a violent stage, as in that short time almost all the prepuce had sloughed off. With this matter a great many experiments were made, and in no one case did it produce chancre when with or without mercury. This I suspect was owing to the patient's having had applied a poultice to the part affected, which might have made the fore change its nature, while it was under the influence of the poultice, so as not to secrete venereal matter, but on the contrary, only pus, as any other common fore. We can as easily conceive that this may take place, as a patient labouring under a free

formed, took at this time, (while the inflammation existed) a purge of calomel and jalap. Could this have prevented a chancre from taking place ?

My friends Dr. Arthur, and Alexander May, assisted me in making experiments with some of the same matter as mentioned in experiments 6, 7, 8, & 9. A chancre was produced in none of their experiments.

In Cullen's materia medica, under the article mercury, we find the following experiment related.

“ A physician took a quantity of matter from a venereal chancre, and mixing it with a quantity of Plenck's gummy solution of mercury, he applied this mixture to a sound person, but could not find that it produced chancre or any other syphilitic symptom.” Dr. Cullen thought it very probable that the gummy solution might render the mercury inert.

To see if there were any foundation for the Doctor's conjecture, I made the following

flow of salavia (in consequence of taking mercury) should cease upon the remission of a paroxysm of fever, or upon being seized with a diarrhœa. I have frequently seen salivation alternate with the paroxysms of fever, at the city hospital, in time of the yellow fever of 1799, and twice with a diarrhœa in the same place.

EXPERIMENT 10.

I inoculated a person with pure venereal matter, mixed with an equal quantity of a solution of gum arabic, in the proportion of two drachms of gum arabic to 8 ounces of water. It did not prevent a chancre from being produced.

The following experiment has been made by a Dr. Harrifon.* He took the matter of an ulcer evidently syphilitic; and after having triturated it with the gummous oxide of mercury, he tried to inoculate for the syphilis with this mixture. The result was, that no infection was communicated. While the inoculation made with some of the same matter, not being mixed, produced an ulcer, and syphilitic symptoms.

Mr. Bell mentions, that “ the matter of venereal sores, when mixed with water used for washing them, has in various instances been swallowed by mistake; but we have no instances of pox being produced by it.” †

Mr. Hunter, mentions the case of “ a gentleman who had chancres which discharged

* Voyez Swediaur dernière Edition, Tome 2. p. 245.

† See Bell on the lues venerea.

largely, used to wash the parts in milk and water, in a tea-cup with some lint, and generally let the lint lie in the cup with the milk. A little boy in the house, stole the milk and drank it: but whether or not he swallowed the lint, was not known. Nothing happened that could give the least suspicion of his having been affected either locally in the stomach, or constitutionally.”*

Mr. Hunter, also mentions, that “a gentleman had a most violent gonorrhœa, in which both the inflammation and discharge were remarkably great. He had also a chordee, which was very troublesome at night; in order to cool the parts, and keep them clean, he had a basin of milk by the bed-side, in which, when the cordee was troublesome, he got up and dipped, or washed the penis. This operation he frequently repeated in the night. Under such complaints, he allowed a young lady to sleep with him; her custom was, to have by her bed-side, a basin of tea to drink in the morning before she got up; but unfortunately for the lady, she drank one morning, the milk instead of the tea; but nothing uncommon happened, for at least many months.”

* See Hunter on the venereal.

The Abbé Fontana, informs us, that large quantities of the venom of the viper may be taken into the stomach without producing any deleterious effects ; but that the smallest particle of it when taken into the blood vessels, produce death.

Why poisons should affect one part of the body, producing the most deleterious effects; and the same poisons when applied to other parts of the body much more sensible, should remain inert, has never been satisfactorily explained.

All secreted poisons appear to be perfectly innocent when taken into the stomach ; but when taken into the blood-vessels, produce disease or death.

To ascertain if the gastric juice had any power of decomposing or rendering those poisons inert, the three following experiments were made.—

EXPERIMENT 11.

I kept fasting 24 hours, a young dog, apparently in good health ; from his stomach I obtained a small quantity of gastric juice, a portion of which, being intimately mixed with the same quantity of pure syphilitic matter,

was introduced into the left arm of a young negro lad; it did not prevent a chancre from being formed in the space of three days.

EXPERIMENT 12.

At the same time, a similar experiment was performed upon another person with the same result. *

EXPERIMENT 13.

A portion of small-pox matter, was intimately mixed with an equal quantity of the gastric juice, (as mentioned in the two preceding experiments), with this mixture two children were inoculated both of whom had the small-pox in the usual manner.*

We see by the preceding experiments, that the gastric juice, when mixed with the poisonous secretions of syphilis and small-pox, has no power of decomposing or rendering them inert, at least, when out of the stomach.

Poisons not producing their effects when taken into the stomach can only be explained upon the principles of Dr. Rush.†

* These three last experiments were made as soon as possible after the gastric juice was obtained from the stomach.

† He has ingeniously divided the body into seven systems; upon each of which, all the different kinds of stimu-

EXPERIMENT 14.

I inoculated on the right arm a man with venereal matter mixed with an equal quantity of a solution of the fulphate of copper, of the strength of one scruple to an ounce of water. It did not prevent a chancre from taking place.

EXPERIMENT 15.

At the same time, I inoculated the same person on the left arm with venereal matter, mixed with an equal quantity of a solution of the fulphate of iron, of the strength of one scruple to an ounce of water. It did not prevent a chancre from taking place.

EXPERIMENT 16.

At the same time, I inoculated the same person on the left arm with some of the same matter mixed with an equal quantity of the oxide of mercury, or precipitate *per se*. It prevented a chancre from taking place.

It is evident from the preceding experiments, that when mercury comes in contact

lants appear to have some particular action; but are by no means more confined to them than the different *forms* of disease are.

with the syphilitic virus, it either renders it entirely inert, or changes its nature in such a manner, as to render it incapable of producing the venereal disease.

We can as easily conceive this to be the case, as that an acid should destroy an alkali, or render it inert. We may as readily believe that an elective attraction should take place between the venereal matter and mercury, as between nitric acid and mercury, or any other agents used in chemistry.

It will not be improper here to take notice of an opinion which has been lately offered to explain the *modus operandi* of mercury, in the cure of the venereal disease. The opinion alluded to, is this : that the anti-venereal properties of mercury depend entirely upon the oxygen which is contained in its different preparations. It is said, that mercury is absorbed and carried into the blood-vessels, in the form of oxide, or mercurial salt, and that the mercury leaves the oxygen and passes off under its metallic state, as a foreign body, from the mass of blood, by perspiration or other excretions.*

The arguments that have been adduced in support of this opinion, are at first sight

* Voyez Swediaur, tome 2.

plausible ; but they can neither stand the test of reason nor experiment.

It cannot be the oxigene contained in the preparations of mercury, that cure the venereal disease ; because we take into the blood-vessels more oxigene in a few inspirations, than is contained in a quantity of the muriate of mercury sufficient to cure a dozen cases of syphilis. Besides, the blue pill and mercurial ointment, are not in a state of oxide, as is satisfactorily proved by the experiments of Mr. Lee.*

We have seen that the poisons of syphilis and small-pox, are taken into the blood-vessels. The same fact is equally true, when applied to mercury.

Our not being able to see those substances in the blood-vessels, is no proof of their not existing in them.

If mercury was not taken into the blood-vessels, how could it cure venereal ulcers, and other external syphilitic affections ?

Bodeloque,† informs us that mercury has been detected in the liquor amnii of a woman, who had taken large quantities of it.

* See Medical Repository, vol. 4.

† See Bodeloque's Midwifery, vol. 1.

A piece of gold will be turned white by rubbing it on the body of a person that is salivated.*

Watches, rings, or other gold jewels, will begin to whiten from the moment that mercury enters the mass of blood; or when it begins to pass off by perspiration.† Now I will thank any person to inform me, how this can be effected without mercury being taken into the circulation.

Swediaur‡ informs us, that a guilden in Paris was salivated by the fumes of mercury, to such a degree, that his legs and thighs were very much swelled, and there came upon them a great many blisters, which discharged an abundance of thick serous water, which was kept in pots. After a certain time there was deposited in them globules of mercury.

We are informed by numerous authorities, and those too the most respectable, that mercury in its crude state, has been found in different parts of the body.

In order to prove that mercury can exist

* See Flack on mercury.

† Voyez Swediaur, tom. 2.

‡ Ibid. tom. 2, p. 369.

in the blood-vessels, the following experiments were made.

.....

Second Series of Experiments.

.....

EXPERIMENT 1.

I injected into one of the jugular veins of a small dog, one *ounce* of quicksilver:—Immediately after its introduction, the action of the heart and arteries appeared to be increased, attended with a respiration somewhat laborious. He appeared rather dull for two or three days, but gradually recovered his former activity, and appears now to be in perfect health. It is more than three weeks since this experiment was performed.

EXPERIMENT 2.

One *scruple* of calomel with three drachms of pump water were injected into one of the jugular veins of a puppy. In eleven minutes after it was introduced, he tried several times to vomit. In forty minutes he discharged fæces—in forty-five there was a great secretion of saliva—in fifty minutes a hæmorrhage from the nose—and in sixty he died.*

* My fellow student, Mr. Rowan, was present at the two last mentioned experiments.

EXPERIMENT 3.

I injected into one of the jugular veins of a bitch, *half a drachm* of precipitate *per se* with three drachms of pump water. She died in sixteen minutes. She had no secretion of saliva.

EXPERIMENT 4.

I injected into one of the jugular veins of a dog, eight grains of calomel, with three drachms of pump water.

In 30 minutes he puked a great deal, and in 60 he discharged fæces. There was a very considerable secretion of saliva, which continued until he died. It had not the mercurial fetor. He died in 17 hours.

EXPERIMENT 5.

I injected into one of the jugular veins of a small bitch, four grains of calomel with two drachms of pump water. She died in thirty-six hours. There was no secretion of saliva.

EXPERIMENT 6.

I injected into one of the jugular veins of a dog, two grains of calomel with two drachms of water. It did not produce death. He appeared to suffer very little from the experiment. He now appears to be in perfect health.

EXPERIMENT 7.

One grain of calomel, with one drachm of pump water, were injected into one of the jugular veins of a dog. Result, the same as the preceding experiment.

It is evident from these experiments, that both crude mercury and calomel can exist in the blood-vessels.

Is it not presumable, that much larger quantities of calomel can exist in the blood-vessels, when it is gradually taken into them by the lymphatics, by which means the stimulus is more equable, and of consequence they are not so violently stimulated as when it is suddenly introduced by means of injection.

III.

EXPERIMENTAL PROOFS THAT THE LUES VENEREA, AND GONORRHOEA, ARE TWO DISTINCT FORMS OF DISEASE.

.....

IT is an unfortunate truth, and much to be regretted, that most physicians, had rather theorize, than experiment.

All opinions in medicine, in order to be lasting, ought to consist of the pure and simple expression of facts.

It has been a subject of much debate and is still the case at present, whether the lues venerea and gonorrhœa are one and the same, or two distinct forms of disease.

The arguments that have been adduced to prove that the syphilis and gonorrhœa are the same disease, are so well known, that it would be unnecessary to introduce them in this place.

The following experiments, compared with the preceding, it is hoped, will be sufficient to establish the difference between the secretions of syphilis and gonorrhœa.

Third Series of Experiments.

.....

EXPERIMENT 1.

I was inoculated by Dr. Barton, on the right arm with gonorrhœal matter.* There was no inflammation produced.

EXPERIMENT 2.

I was inoculated by Dr. Barton, at the same time, and with some of the same gonorrhœal matter, mixed intimately with calomel. There was no inflammation produced.

EXPERIMENT 3.

My fellow student Mr. Rowan, was inoculated in the right arm with some of the gonorrhœal matter, as mentioned in the two preceding experiments. There was not the least inflammation produced.

EXPERIMENT 4.

At the same time and with some of the same gonorrhœal matter, mixed with an equal quantity of gum camphor : Mr. Row-

* This matter the Doctor obtained from one of his patients ; he thought it was perfectly virulent.

an was inoculated on the right arm. There was no inflammation produced.

EXPERIMENT 5.

I inoculated my friend Mr. Thomson, on the right arm with gonorrhœal matter. There was no inflammation produced.

EXPERIMENT 6.

At the same time Mr. Thomson, was inoculated with some of the same gonorrhœal matter, mixed with an equal quantity of a gummous solution of mercury, of the following proportions. Quicksilver sixteen grains, gum arabic two scruples, water eight ounces. There was no inflammation produced.

EXPERIMENT 7.

I inoculated a servant man, on the right arm with gonorrhœal matter just obtained from the penis. There was no chancre nor the least inflammation produced.

EXPERIMENT 8.

At the same time, I inoculated the same person, (as mentioned in the preceding experiment) on the left arm with gonorrhœal matter mixed with calomel. There was no chancre nor the smallest inflammation produced.

EXPERIMENT 9.

Three weeks from the time, when the experiment was performed upon me by Dr. Barton. I was inoculated with some fresh gonorrhœal matter on the right fore arm. There was no chancre nor the least inflammation produced.

EXPERIMENT 10.

At the same time, and with some of the same matter mixed intimately with a weak solution of nitric acid, I inoculated myself on the left fore arm. There was no chancre formed; but some little inflammation, caused, I suppose, by the acid, which soon went off.

EXPERIMENT 11.

I inoculated Mr. Rowan* on the right fore arm with some of the gonorrhœal matter, as used in the two last mentioned experiments. There was no inflammation produced.

EXPERIMENT 12.

At the same time, and with some of the same gonorrhœal matter, as used in the preceding experiment, mixed with a weak solu-

* This experiment was made two weeks after the third experiment.

tion of lunar caustic, I inoculated Mr. Rowan on the left fore arm. There was no inflammation produced.

EXPERIMENT 13.

I inoculated Mr. Thompson, a student of medicine, a second time (ten days after the first experiment was performed upon him) on the right arm with some of the gonorrhoeal matter, as used in the preceding experiment. There was no inflammation produced.

EXPERIMENT 14.

At the same time I inoculated Mr. Thompson, on the left arm, with some of the same gonorrhoeal matter, mixed with gum arabic. There was no inflammation produced.

EXPERIMENT 15.

Two pieces of lint well soaked in fresh gonorrhoeal matter, (which I was informed was perfectly virulent) were applied behind the glands penis under the prepuce, and suffered to remain two days and a half. There was no chancre, nor the least inflammation produced.

EXPERIMENT 16.

With fresh gonorrhœal matter (which I was informed was perfectly virulent) an healthy young man was inoculated on the glands penis, and upon the prepuce. No chancre nor the smallest inflammation was produced.

It is evident, from comparing these experiments, with those made with the venereal virus ; that the two secretions are entirely different. We saw in the experiments made with the venereal virus, that chancre was produced, in almost every case, whereas the experiments made with gonorrhœal matter were incapable of producing even inflammation.

Experiments must overthrow the illusions of opinion, the whims of caprice, and confirm and establish the decisions of nature.

*It appears from the following experiments,
that the dogs, &c. are not capable of being
infected with the venereal disease.*

.....

EXPERIMENT 1.

I inoculated a dog, on the under side of each ear, with venereal matter; and also applied a portion of the same matter to each eye. There was not the smallest inflammation produced, either in his eyes, or on the under side of the ears.

EXPERIMENT 2.

I inoculated a cat, with venereal matter, there was no inflammation produced.

EXPERIMENT 3.

A large portion of venereal matter, was dissolved in two drachms of water, and injected into the vagina of a bitch. It did not produce the disease.

EXPERIMENT 4.

I inoculated a dog, on the inner side of each ear, with gonorrhoeal matter, and also applied some of the same matter to each eye. There was no inflammation produced, either in his eyes or on the under side of his ears.

EXPERIMENT 5.

I dissolved a large portion of gonorrhoeal matter, in water, so much so, that it was quite turbid; and injected it into the eyes and nostrils of a cat, apparently in perfect health.

Her eyes appeared inflamed soon after ; but it went off in two or three hours.

The cat, on which this experiment was made, appears not to have suffered the least inconvenience from the experiment.

EXPERIMENT 6.

I inoculated another cat, on the under side of each ear, with gonorrhœal matter. There was not the least inflammation produced.

In addition to these experiments, Mr. Hunter informs us that “ he has repeatedly soaked lint in matter from gonorrhœa, chancre, bubo, and introduced it into the vagina of bitches, without producing any effect. I have also introduced it into the vagina of asses without any effect. I have introduced it under the the prepuce of dogs, without any effect. I have also made incisions, and introduced it under the skin, and it has only produced a common sore. I have made the same experiment upon asses, with the same result.”*

M. de Paw,† informs us that the dogs, which the Spaniards brought into the different Islands, and districts of the new world, were very soon seized with the venereal disease. He also says the dogs of Peru, now-a-days experience the approaches of this disease.

* See Hunter on the lues venerea.

† Voyez recherches philosophiques sur les Americains.
Tome premier

From the experiments made by Mr. Hunter, and myself, it is satisfactorily proved, that those animals cannot be affected with the venereal disease; and we must believe M. de Paw, is as much mistaken on this subject, as he is concerning the origin of this disease.

Before closing this essay, I cannot forbear mentioning that the difficulty of the subjects and the time in which they were written, has unavoidably prevented the preceding pages from being handled in such a satisfactory manner as could be wished. Those who read to find fault, will not be disappointed; but those who are more candidly disposed, will at least say, that I have attempted to investigate an obscure part of the science of medicine.

Each of the Professors in the University of Pennsylvania will please ~~to~~ accept my thanks for the information I have received from their lectures.

My former preceptor, Dr. Beanes, will also, please ~~to~~ accept my best respects, for the many attentions I have received from him.

I beg leave in this place to return my best thanks to Dr. Physick for the information I have received from his valuable lectures upon the operative part of surgery.



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